

AMENDMENT TO CLAIMS

This version of claims will replace all prior versions and listings of claims.

1. (Original) A composition comprising:
a bioabsorbable oligomeric compound that is end-capped with an aromatic diisocyanate;
a trifunctional compound that is end-capped with an aromatic diisocyanate; and
an aromatic diisocyanate.

2. (Original) A composition as in claim 1 wherein the bioabsorbable oligomeric compound is a compound having the structure:
$$[A]_n-X$$
wherein A is a bioabsorbable group, n is from 1 to about 6 and X is a residue from a multifunctional initiator.

3. (Original) A composition as in claim 2 wherein the bioabsorbable group is a group derived from a monomer selected from the group consisting of glycolic acid, glycolide, lactic acid, lactide, 1,4-dioxane-2-one, 1,3-dioxane-2-one and ϵ -caprolactone.

4. (Original) A composition as in claim 2 wherein X is a residue from a multifunctional initiator selected from the group consisting of diols, aromatic and alkyl triols, polyols, alcohol amines, dicarboxylic acids and aromatic dicarboxylic acids.

5. (Original) A composition as in claim 2 wherein X is a residue from a multifunctional initiator selected from the group consisting of ethylene glycol, diethylene glycol, 1,3-propanediol, 1,4-butanediol, 1,5-pentanediol, 1,6-hexanediol, 1,7-heptanediol, 1,8-octanediol, 1,10-decanediol, 1,12-dodecanediol, 1,2-decanediol, 1,2-dodecanediol, 1,2-hexadecanediol, neopentyl glycol, 3-methyl-1,5-pentanediol, 2-methyl-1,3-propanediol, 2-butyl-2-ethyl-1,3-propanediol, 2-ethyl-3-butyl-1,3-propanediol, 2-ethyl-1,6-hexanediol, glycerol, 1,1,1-trimethylolpropane, neopentyl glycol, pentaerythritol, triethanolamine, 1-aminopropanols, 2-aminopropanols, 2- aminobutanols, 4- aminobutanols, succinic acid, glutaric acid, adipic acid, suberic acid, sebatic acid, dodecanedioic acid, 2-ethyl-2-methylsuccinic acid, phthalic acid, isophthalic acid, and terephthalic acid.

6. (Original) A composition as in claim 1 wherein the bioabsorbable oligomer is end-capped with an aromatic diisocyanate selected from the group consisting of 1,4-diisocyanatobenzene, 1,1'-methylenebis[4-isocyanatobenzene], 2,4-diisocyanato-1-methylbenzene, 1,3-diisocyanato-2-methylbenzene, 1,5-diisocyanatonaphthalene, 1,1'-(1-methylethylidene)bis[4-isocyanatobenzene) and 1,3- and 1,4-bis(1-isocyanato-1-methylethyl)benzene.

7. (Currently Amended) A composition as in claim 1 wherein the trifunctional compound is selected from the group consisting of glycerol, 1,1,1-trimethylolpropane,

neopentyl glycol, pentaerythritol, triethanolamine, 1- aminopropanols, 2-aminopropanols, 2- aminobutanols, and 4-aminobutanols.

8. (Original) A composition as in claim 1 wherein the trifunctional compound is end-capped with an aromatic diisocyanate selected from the group consisting of 1,4-diisocyanatobenzene, 1,1'-methylenebis[4-isocyanatobenzene], 2,4-diisocyanato-1-methylbenzene, 1,3-diisocyanato-2-methylbenzene, 1,5-diisocyanatonaphthalene, 1,1'-(1-methylethylidene)bis[4-isocyanatobenzene] and 1,3- and 1,4-bis(1-isocyanato-1-methylethyl)benzene.

9. (Original) A composition as in claim 1 wherein the aromatic diisocyanate is selected from the group consisting of 1,4-diisocyanatobenzene, 1,1'-methylenebis[4-isocyanatobenzene], 2,4-diisocyanato-1-methylbenzene, 1,3-diisocyanato-2-methylbenzene, 1,5-diisocyanatonaphthalene, 1,1'-(1-methylethylidene)bis[4-isocyanatobenzene] and 1,3- and 1,4-bis(1-isocyanato-1-methylethyl)benzene.

Claims 10-12 (canceled)

13. (Previously presented) A composition as in claim 1 wherein the bioabsorbable oligomeric compound that is end-capped with an aromatic diisocyanate is present in an amount from about 50 to about 95 percent by weight of the composition;

the trifunctional compound that is end-capped with an aromatic diisocyanate is present in an amount from about 5 to about 40 percent by weight of the composition; and the aromatic diisocyanate is present in an amount from about 1 to about 10 percent by weight of the composition.

14. (Previously presented) A composition as in claim 1 wherein the bioabsorbable oligomeric compound that is end-capped with an aromatic diisocyanate is present in an amount from about 70 to about 90 percent by weight of the composition; the trifunctional compound that is end-capped with an aromatic diisocyanate is present in an amount from about 8 to about 25 percent by weight of the composition; and the aromatic diisocyanate is present in an amount from about 2 to about 5 percent by weight of the composition.

15. (Previously presented) A method of adhering first and second tissue surfaces, the method comprising approximating the first and second tissue surfaces; and applying to the approximated tissue surfaces a composition of claim 1.

16. (Previously presented) A method of adhering a surgical device to tissue, the method comprising: applying to the surgical device a composition of claim 1; and contacting the surgical device with tissue.

17. (Previously presented) A method of sealing a defect in tissue, the method comprising identifying a tissue site containing a defect; and applying a composition of claim 1 to the site of the defect.

18. (Previously presented) A method for reducing leakage of bodily fluids or air comprising applying to a tissue defect a composition in accordance with claim 1 and crosslinking the composition.

19. (Currently Amended) A composition comprising:
a bioabsorbable oligomeric compound that is end-capped with an aromatic diisocyanate, wherein the bioabsorbable oligomeric compound has the structure:



wherein A is a bioabsorbable group derived from a monomer selected from the group consisting of glycolic acid, glycolide, lactic acid, lactide, 1,4-dioxane-2-one, 1,3-dioxane-2-one and ε-caprolactone, n is from about 1 to about 6 and X is a residue from a multifunctional initiator selected from the group consisting of ethylene glycol, diethylene glycol, 1,3-propanediol, 1,4-butanediol, 1,5-pentanediol, 1,6-hexanediol, 1,7-heptanediol, 1,8-octanediol, 1,10-decanediol, 1,12-dodecanediol, 1,2-decanediol, 1,2-dodecanediol, 1,2-hexadecanediol, neopentyl glycol, 3-methyl-1,5-pentanediol, 2-methyl-1,3-propanediol, 2-butyl-2-ethyl-1,3-propanediol, 2-ethyl-3-butyl-1,3-propanediol, 2-ethyl-1,6-hexanediol, glycerol, 1,1,1-trimethylolpropane, neopentyl glycol, pentaerythritol, triethanolamine, 1- aminopropanols, 2-aminopropanols, 2- aminobutanols, 4-

aminobutanols, succinic acid, glutaric acid, adipic acid, suberic acid, sebamic acid, dodecanedioic acid, 2-ethyl-2-methylsuccinic acid, phthalic acid, isophthalic acid, and terephthalic acid; a trifunctional compound that is end-capped with an aromatic diisocyanate, wherein the trifunctional compound is selected from the group consisting of glycerol, 1,1,1-trimethylolpropane, ~~neopentyl glycol~~, ~~pentaerythritol~~, triethanolamine, 1-aminopropanols, 2-aminopropanols, 2-aminobutanols, and 4-aminobutanols; and an aromatic diisocyanate selected from the group consisting of 1,4-diisocyanatobenzene, 1,1'-methylenebis[4-isocyanatobenzene], 2,4-diisocyanato-1-methylbenzene, 1,3-diisocyanato-2-methylbenzene, 1,5-diisocyanatonaphthalene, 1,1'-(1-methylethylidene)bis[4-isocyanatobenzene] and 1,3- and 1,4-bis(1-isocyanato-1-methylethyl)benzene.

20. (Currently amended) A method of comprising: applying to tissue a composition comprising comprising a bioabsorbable oligomeric compound that is end-capped with an aromatic diisocyanate; a trifunctional compound that is end-capped with an aromatic diisocyanate; and an aromatic diisocyanate; and crosslinking the composition.

21. (Previously presented) A method as in claim 17 wherein crosslinking comprises contacting the composition with a compound selected from the group consisting of water, diethylene glycol and polyethylene glycol.

22. (Previously presented) A method as in claim 17 wherein crosslinking includes the use of a catalyst.

23. (Previously presented) A method as in claim 17 wherein crosslinking is conducted at temperatures from about 20° C. to about 40 ° C. for a time from about thirty seconds to about one hour.

24. (Currently Amended) A method as in claim 17 wherein the composition is crosslinking is conducted at least partially crosslinked prior to application to tissue.